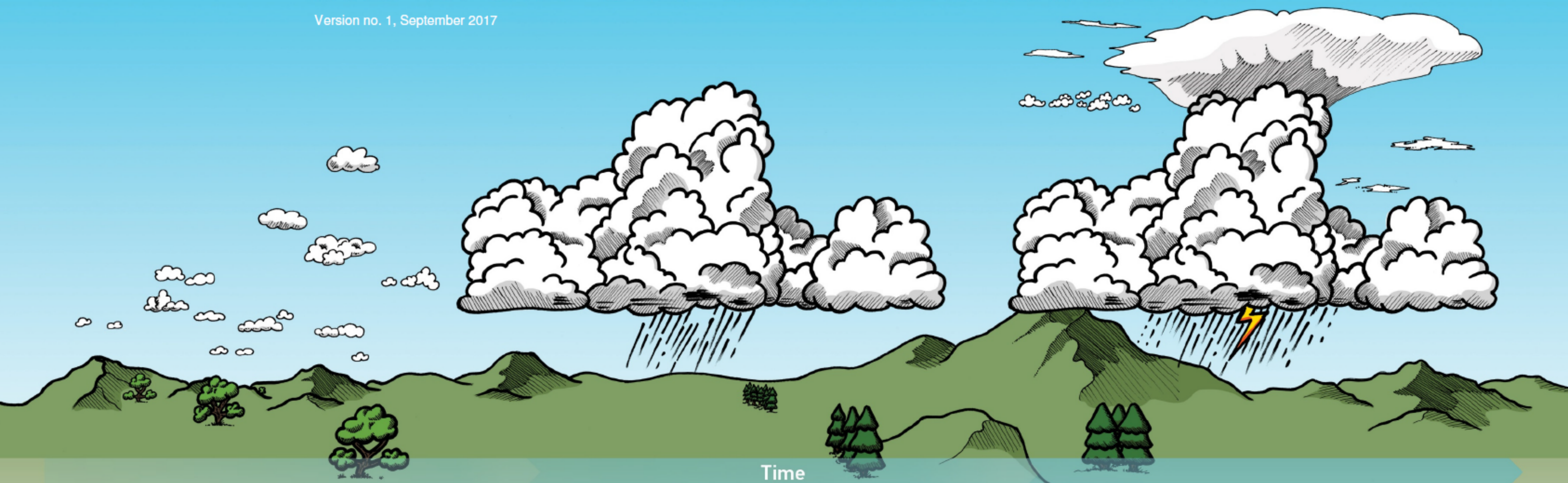


STEP BY STEP DEEP CONVECTION NOWCASTING

Version no. 1, September 2017



1. Pre-Convective Environment

Refers to the 4-D thermodynamic and wind field present before convective initiation occurs.

Useful tools:

NWP data, Radiosonde and aircraft measurements
MSG GII/RII Product – instability & moisture
iSHAI Products – instability & moisture
HRW Product – wind fields
METOP/IASI level2 – temp & moisture vert. profiles

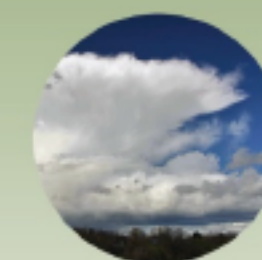


2. Convective Initiation

Refers to the process where an existing cumulus cloud begins rapid vertical growth.

Useful tools:

Radar, lightning data
Cloud Type
Cloud Top Temperature
Cloud Microphysics
Convection Initiation – demonstrational
Optimal Cloud Analysis



3. Mature Convective Storm

Refers to the presence of convective clouds with tops at or above their local equilibrium level.

Useful tools:

Radar, lightning data
RDT Product – storm tracking
Precipitating Clouds
CRR Product – precipitation
NEFODINA
Convection RGB
Overshooting Top Detection
MSG Sandwich Product (HRV+IR10.8 enhanced)



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